

A CATALYST SYSTEM FOR THE REDUCTION OF NO_x AND NH₃ EMISSIONS

Abstract of Disclosure

This catalyst system simultaneously removes ammonia and enhances net NOx conversion by placing an NH₃-SCR catalyst formulation downstream of a lean NOx trap. By doing so, the NH₃-SCR catalyst adsorbs the ammonia from the upstream lean NOx trap generated during the rich pulses. The stored ammonia then reacts with the NOx emitted from the upstream lean NOx trap – enhancing the net NOx conversion rate significantly, while depleting the stored ammonia. By combining the lean NOx trap with the NH₃-SCR catalyst, the system allows for the reduction or elimination of NH₃ and NOx slip, reduction in NOx spikes and thus an improved net NOx conversion during lean and rich operation.

Figures